

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An eye characteristic measuring apparatus comprising:
 - a light source part ~~for emitting~~ configured to emit a light flux with a first wavelength;
 - a first illuminating optical system ~~for illuminating~~ configured to illuminate a minute area on a retina of a subject eye with the light flux from the light source part;
 - a first light receiving optical system ~~for receiving~~ configured to receive a part of a reflected light flux reflected and returned from the retina of the subject eye through a first conversion member including a lens part having a long focal point ~~or high or first~~ sensitivity and ~~for converting~~ configured to convert the reflected light flux into substantially at least 17 beams;
 - a second light receiving optical system ~~for receiving~~ configured to receive a part of the reflected light flux reflected and returned from the retina of the subject eye through a second conversion member including a lens part having a short focal point ~~or low or second~~ sensitivity ~~or high density~~ and ~~for converting~~ configured to convert the reflected light flux into substantially at least 17 beams, the first sensitivity being greater than the second sensitivity;
 - a first light receiving part ~~for receiving~~ configured to receive the received light flux of the first light receiving optical system;
 - a second light receiving part ~~for receiving~~ configured to receive the received light flux of the second light receiving optical system;
 - a measurement condition setting part ~~for setting~~ configured to set a measurement condition of the first and/or the second light receiving optical system on the basis of an output signal from the second light receiving part; and
 - an arithmetic part ~~for obtaining~~ configured to obtain an optical characteristic of the subject eye on the basis of an output of the first light receiving part and/or the second light receiving part.

2. (Original) An eye characteristic measuring apparatus according to claim 1, wherein the measurement condition setting part corrects the lower order aberrations with respect to the first and/or the second light receiving optical system on the basis of the output of the second light receiving part.

3. (Currently Amended) An eye characteristic measuring apparatus comprising:

 a light source part ~~for emitting~~ configured to emit a light flux with a first wavelength;

 a first illuminating optical system ~~for illuminating~~ configured to illuminate a minute area on a retina of a subject eye with the light flux from the light source part;

 a first light receiving optical system ~~for receiving~~ configured to receive a part of a reflected light flux reflected and returned from the retina of the subject eye through a first conversion member including a lens part having a long focal point ~~or high or first~~ sensitivity and ~~for converting~~ configured to convert the reflected light flux into substantially at least 17 beams;

 a second light receiving optical system ~~for receiving~~ configured to receive a part of the reflected light flux reflected and returned from the retina of the subject eye through a second conversion member including a lens part having a short focal point ~~or low or second~~ sensitivity ~~or high density~~ and ~~for converting~~ configured to convert the reflected light flux into substantially at least 17 beams, the first sensitivity being greater than the second sensitivity;

 a first light receiving part ~~for receiving~~ configured to receive the received light flux of the first light receiving optical system;

 a second light receiving part ~~for receiving~~ configured to receive the received light flux of the second light receiving optical system; and

 an arithmetic part ~~for obtaining~~ configured to obtain an optical characteristic of the subject eye on the basis of an output of the first light receiving part and/or the second light receiving part and ~~for estimating~~ configured to estimate a change of direction or an arrangement of the beams by the first conversion member on the basis of the output from the second light receiving part.

4. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, further comprising a measurement condition setting part ~~for setting~~ configured to set a measurement condition of the first and/or the second light receiving optical system,

wherein the measurement condition setting part corrects [[a]] lower order aberrations with respect to the first and/or the second light receiving optical system on the basis of the output of the second light receiving part.

5. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein the illuminating optical system illuminates the minute area on the retina of the subject eye with [[the]] thin beams of the light flux from the light source part.

6. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein the illuminating optical system illuminates the minute area on the retina of the subject eye with [[the]] wide beams of the light flux from the light source part.

7. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein the optical characteristic is obtained on the basis of the output of the second light receiving part, and as a result, when there are third or higher order aberrations with a predetermined amount or more, the arithmetic part makes a result on the basis of the output of the second light receiving part regarding the optical characteristic of the subject eye.

8. (Previously presented) An eye characteristic measuring apparatus according to claim 2, wherein the optical characteristic is obtained on the basis of the output of the second light receiving part, and as a result, when three or higher order aberrations with a predetermined amount or more are not obtained, the measurement condition setting part changes the measurement condition of the first and/or the second light receiving optical system by the optical characteristic obtained on the basis of the second light receiving part, and the arithmetic part obtains the optical characteristic of the subject eye on the basis of the output of the first light receiving part after the change.

9. (Previously presented) An eye characteristic measuring apparatus according to claim 2, wherein the optical characteristic is obtained on the basis of the output of the second light receiving part, and as a result, when three or higher order aberrations with a predetermined amount or more are not obtained, the measurement condition setting part changes the measurement condition of the first and/or the second light receiving optical system by the optical characteristic obtained on the basis of the second light receiving part, and the arithmetic part obtains the optical characteristic of the subject eye on the basis of the outputs of the first light receiving part and the second light receiving part after the change.

10. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein the arithmetic part obtains a position of a received light point in the first light receiving part on the basis of a position of a received light point in the second light receiving part with the short focal point or ~~the low the second~~ sensitivity ~~or the high density~~.

11. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein the arithmetic part obtains a position of a received light point in the first light receiving part on the basis of a deviation direction and a deviation amount of a received light point in the second light receiving part with the short focal point or ~~the low the second~~ sensitivity ~~or the high density~~.

12. (Previously presented) An eye characteristic measuring apparatus according to claim 1, wherein the arithmetic part estimates a movement amount of a point image relating to the output of the first light receiving part by using Zernike coefficients obtained on the basis of the output of the second light receiving part.

13. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein in the second light receiving optical system, a change of the beam converted by the second conversion member over a measurable range is set to be smaller than a conversion pitch of the second conversion member, ~~and as a result, an easy and speedy signal processing is realized.~~

14. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein in the second light receiving optical system, a change of the beam converted by the second conversion member over a measurable range is set to be smaller than a conversion pitch of the second conversion member, and as a result, a defective position of spot images can be easily detected, or detection ranges of the respective spot images can be uniformly detected without overlap, ~~and an easy and speedy signal processing of the beam is realized.~~

15. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, wherein in the first light receiving optical system, a change of the beam converted by the first conversion member over a measurable range is set to be larger than a conversion pitch of the first conversion member, ~~and as a result, a measurement with high sensitivity and high accuracy can be performed.~~

16. (Currently Amended) An eye characteristic measuring apparatus according to claim 1, further comprising a Hartmann image display part ~~for receiving~~ configured to receive the signal from the first light receiving part and/or the second light receiving part, and the Hartmann image display part displays a first Hartmann image according to the first conversion member including the lens part with the high sensitivity or the long focal point and/or a Hartmann image according to the second conversion member including the lens part with ~~the high density or the low~~ the second sensitivity or the short focal point.

17. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein the illuminating optical system illuminates the minute area on the retina of the subject eye with [[the]] thin beams of the light flux from the light source part.

18. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein the illuminating optical system illuminates the minute area on the retina of the subject eye with [[the]] wide beams of the light flux from the light source part.

19. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein the optical characteristic is obtained on the basis of the output of the second light receiving part, and as a result, when there are third or higher order aberrations with a predetermined amount or more, the arithmetic part makes a result on the basis of the output of the second light receiving part regarding the optical characteristic of the subject eye.

20. (Previously presented) An eye characteristic measuring apparatus according to claim 4, wherein the optical characteristic is obtained on the basis of the output of the second light receiving part, and as a result, when three or higher order aberrations with a predetermined amount or more are not obtained, the measurement condition setting part changes the measurement condition of the first and/or the second light receiving optical system by the optical characteristic obtained on the basis of the second light receiving part, and the arithmetic part obtains the optical characteristic of the subject eye on the basis of the output of the first light receiving part after the change.

21. (Previously presented) An eye characteristic measuring apparatus according to claim 4, wherein the optical characteristic is obtained on the basis of the output of the second light receiving part, and as a result, when three or higher order aberrations with a predetermined amount or more are not obtained, the measurement condition setting part changes the measurement condition of the first and/or the second light receiving optical system by the optical characteristic obtained on the basis of the second light receiving part, and the arithmetic part obtains the optical characteristic of the subject eye on the basis of the outputs of the first light receiving part and the second light receiving part after the change.

22. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein the arithmetic part obtains a position of a received light point in the first light receiving part on the basis of a position of a received light point in the second light receiving part with the short focal point or the second sensitivity the low sensitivity or the high density.

23. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein the arithmetic part obtains a position of a received light point in the first light receiving part on the basis of a deviation direction and a deviation amount of a received light point in the second light receiving part with the short focal point or the second sensitivity the low sensitivity or the high density.

24. (Previously presented) An eye characteristic measuring apparatus according to claim 3, wherein the arithmetic part estimates a movement amount of a point image relating to the output of the first light receiving part by using Zernike coefficients obtained on the basis of the output of the second light receiving part.

25. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein in the second light receiving optical system, a change of the beam converted by the second conversion member over a measurable range is set to be smaller than a conversion pitch of the second conversion member, ~~and as a result, an easy and speedy signal processing is realized.~~

26. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein in the second light receiving optical system, a change of the beam converted by the second conversion member over a measurable range is set to be smaller than a conversion pitch of the second conversion member, and as a result, a defective position of spot images can be easily detected, or detection ranges of the respective spot images can be uniformly detected without overlap, ~~and an easy and speedy signal processing of the beam is realized.~~

27. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, wherein in the first light receiving optical system, a change of the beam converted by the first conversion member over a measurable range is set to be larger than a conversion pitch of the first conversion member, ~~and as a result, a measurement with high sensitivity and high accuracy can be performed.~~

28. (Currently Amended) An eye characteristic measuring apparatus according to claim 3, further comprising a Hartmann image display part ~~for receiving~~ configured to receive the signal from the first light receiving part and/or the second light receiving part, and the Hartmann image display part displays a first Hartmann image according to the first conversion member including the lens part with the [[high]] first sensitivity or the long focal point and/or a Hartmann image according to the second conversion member including the lens part with ~~the high density or the low~~ the second sensitivity or the short focal point.